Sequence Listing

<110> Baker, Kevin
Botstein, David
Eaton, Dan
Ferrara, Napoleone
Filvaroff, Ellen
Gerritsen, Mary
Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Klagsbrun, Ivar
Napier, Mary
Roy, Margaret
Tumas, Daniel
Wood, William

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Asp Asp Asp Asp Asp Glu Asp Asn Ser Leu Phe Pro Thr Arg Glu
50 55 60

Pro Arg Ser His Phe Phe Pro Phe Asp Leu Phe Pro Met Cys Pro
65 70 75

Phe Gly Cys Gln Cys Tyr Ser Arg Val Val His Cys Ser Asp Leu
80 85 90

Gly Leu Thr Ser Val Pro Thr Asn Ile Pro Phe Asp Thr Arg Met
95 100 105

Leu Asp Leu Gln Asn Asn Lys Ile Lys Glu Ile Lys Glu Asn Asp
110 115 120

Phe Lys Gly Leu Thr Ser Leu Tyr Gly Leu Ile Leu Asn Asn Asn
125 130 135

Lys Leu Thr Lys Ile His Pro Lys Ala Phe Leu Thr Thr Lys Lys
140 145 150

Leu Arg Arg Leu Tyr Leu Ser His Asn Gln Leu Ser Glu Ile Pro
155 160 165

Leu Asn Leu Pro Lys Ser Leu Ala Glu Leu Arg Ile His Glu Asn
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Lys Val Lys Lys Ile Gln Lys Asp Thr Phe Lys Gly Met Asn Ala
185 190 195

Leu His Val Leu Glu Met Ser Ala Asn Pro Leu Asp Asn Asn Gly
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Ile Glu Pro Gly Ala Phe Glu Gly Val Thr Val Phe His Ile Arg
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Ile Ala Glu Ala Lys Leu Thr Ser Val Pro Lys Gly Leu Pro Pro
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Glu Leu Gln Asp Phe Lys Arg Tyr Lys Glu Leu Gln Arg Leu Gly
260 2 270

Leu Gly Asn Asn Lys Ile Thr Asp Ile Glu Asn Gly Ser Leu Ala
275 28 285

Asn Ile Pro Arg Val Arg Glu Ile His Leu Glu Asn Asn Lys Leu
290 295 300

Lys Lys Ile Pro Ser Gly Leu Pro Glu Leu Lys Tyr Leu Gln Ile
305 310 315

Ile Phe Leu His Ser Asn Ser Ile Ala Arg Val Gly Val Asn Asp
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Phe Cys Pro Thr Val Pro Lys Met Lys Lys Ser Leu Tyr Ser Ala
335 340 345

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t[illegible]gcat tgaat[illegible]ag [illegible]tt[illegible]ttcca ggccagccta tgagaagttc 2150

taaaactgcc gcagcatcga cagcaagttc agcaatgcca ttgcatccat 2200

[illegible]gatgcc aggtttggaa agaa[illegible]cccg gcctgcaatg tatgatgtga 2250

[illegible] 2300

[illegible] [illegible] [illegible] [illegible]ttggattat [illegible]ttcaaaaa 2350

[illegible] [illegible] taaatatttt [illegible] [illegible] 2400

gaatttaaa atgctagctg ctccagagtt ttcagtagaa tatttaagaa 2450

ctaatttttct gcaactttta gtttggaaaa aatatttaa aaacaaaatt 2500

tgtgaaa[illegible]t atagacgatg ttttaatgta [illegible]ttcagctc tctaaactgt 2550

gtgcttctac tagtgtgtg[illegible] tctttt[illegible]a[illegible]t gtagacacta t[illegible]acgagac[illegible] 2600

cagattaatt tctgtgattg ttacagaata ag[illegible]ctaatca aagagaagtt 2650

tctgtttgac gtttgagtac [illegible] [illegible] [illegible] 2700

gtaagtagc atatgatgt[illegible] taatagaat[illegible] taccgtta[illegible] t[illegible]aaaaaa 2750

[illegible] 2800

taa[illegible]cgaat gaaattag[illegible] [illegible] [illegible] [illegible] 2850

ttatttctg[illegible] actgttt[illegible] [illegible] [illegible] [illegible] 2900

gtttttgtca ttttcgtaac agtcgtcgaa ctaggcctca aaaacatacg 2950

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ttctttaaaa agtcaagggt [illegible]ctatattgt gagtaaatta aatttacatt 3050

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tcagtagtga gtatttctca tagtgcagct ttatttatct ccaggatgtt 3150

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<210> 15
<211> 7[illegible]7
<212> PRT
<213> Homo sapiens

<400> 15

Met Gln Pro Arg Arg Ala Gln Ala Pro Gly Ala Gln Leu Leu Pro
1 5 10 15

Ala Leu Ala Leu Leu Leu Leu Leu Leu Gly Ala Gly Pro Arg Gly
20 25 30

Ser Ser Leu Ala Asn Pro Val Pro Ala Ala Pro Leu Ser Ala Pro
35 40 45

Gly Pro Cys Ala Ala Gln Pro Cys Arg Asn Gly Gly Val Cys Thr
50 55 60

Ser Arg Pro Glu Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu
65 70 75

Pro Gly Tyr Ser Cys Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn
80 85 90

Cys Gln Leu Val Ala Asp Pro Cys Ala Ser Asn Pro Cys His His
95 100 105

Gly Asn Cys Ser Ser Ser Ser Ser Ser Ser Ser Asp Gly Tyr Leu

110 115 120

Cys Ile Cys Asn Glu Gly Tyr Glu Gly Pro Asn Cys Glu Gln Ala
125 130 135

Leu Pro Ser Leu Pro Ala Thr Gly Trp Thr Glu Ser Met Ala Pro
140 145 150

Arg Gln Leu Gln Pro Val Pro Ala Thr Gln Glu Pro Asp Lys Ile
155 160 165

Leu Pro Ala Ser Gln Ala Thr Val Thr Leu Pro Thr Trp Gln Pro
170 175 180

Lys Thr Gly Gln Lys Val Val Glu Met Lys Trp Asp Gln Val Glu
185 190 195

Val Ile Pro Asp Ile Ala Cys Gly Asn Ala Ser Ser Asn Ser Ser
200 205 210

Ala Gly Gly Arg Leu Val Ser Phe Glu Val Pro Gln Asn Thr Ser
215 220 225

Val Lys Ile Arg Gln Asp Ala Thr Ala Ser Leu Ile Leu Leu Trp
230 235 240

Lys Val Thr Ala Thr Gly Phe Gln Gln Cys Ser Leu Ile Asp Gly
245 250 255

Arg Ser Val Thr Pro Leu Gln Ala Ser Gly Gly Leu Val Leu Leu
260 265 270

Glu Glu Met Leu Ala Leu Gly Asn Asn His Phe Ile Gly Phe Val
275 280 285

Asn Asp Ser Val Thr Lys Ser Ile Val Ala Leu Arg Leu Thr Leu
290 295 300

Val Val Lys Val Ser Thr Cys Val Pro Gly Glu Ser His Ala Asn
305 310 315

Asp Leu Glu Cys Ser Gly Lys Gly Lys Cys Thr Thr Lys Pro Ser
320 325 330

Glu Ala Thr Phe Ser Cys Thr Cys Glu Glu Gln Tyr Val Gly Thr
335 340 345

Phe Cys Gln Gln Tyr Asp Ala Cys Gln Arg Lys Pro Cys Gln Asn
350 355 360

Asn Ala Ser Cys Ile Asp Ala Asn Glu Lys Gln Asp Gly Ser Asn
365 370 375

Phe Thr Cys Val Cys Leu Pro Gly Tyr Thr Gly Glu Leu Cys Gln
380 385 390

Ser Lys Ile Asp Tyr Cys Ile Leu Asp Pro Cys Arg Asn Gly Ala
395 400 405

Thr Cys Ile Ser Ser Leu Ser Gly Phe Thr Cys Gln Cys Pro Glu
41 415 42

Gly Tyr Phe Gly Ser Ala Cys Glu Glu Lys Val Asp Pro Cys Ala
425 430 43

Cys Ser Pro Cys Gln Asn Asn Gly Thr Cys Tyr Val Asp Gly Val
44 445 45

His Phe Thr Cys Asn Cys Ser Phe Gly Phe Thr Gly Pro Thr Cys
46 46 47

Ala Gln Leu Ile Asp Phe Cys Ala Leu Ser Pro Cys Ala His Gly
47 475 480

Thr Cys Arg Ser Val Gly Thr Ser Tyr Lys Cys Leu Cys Asp Pro
48 490 495

Gly Tyr His Gly Leu Tyr Cys Glu Glu Gln Tyr Asn Glu Cys Leu
50 505 510

Ser Ala Pro Cys Leu Asn Ala Ala Thr Cys Arg Asp Leu Val Asn
51 520 525

Gly Tyr Glu Cys Val Cys Leu Ala Glu Tyr Lys Gly Thr His Cys
53 535 540

Glu Leu Tyr Lys Asp Pro Cys Ala Asn Val Ser Cys Leu Asn Gly
54 550 555

Ala Thr Cys Asp Ser Asp Gly Leu Asn Gly Thr Cys Ile Cys Ala
56 565 570

Pro Gly Phe Thr Gly Glu Glu Cys Asp Ile Asp Ile Asn Glu Cys
57 580 585

Asp Ser Asn Pro Cys His His Gly Gly Ser Cys Leu Asp Gln Pro
59 595 600

Asn Gly Tyr Asn Cys His Cys Pro His Gly Trp Val Gly Ala Asn
60 610 615

Cys Glu Ile His Leu Gln Trp Lys Ser Gly His Met Ala Glu Ser
62 625 630

Leu Thr Asn Met Pro Arg His Ser Leu Tyr Ile Ile Ile Gly Ala
63 640 645

Leu Cys Val Ala Phe Ile Leu Met Leu Ile Ile Leu Ile Val Gly
65 655 660

Ile Cys Arg Ile Ser Arg Ile Glu Tyr Gln Gly Ser Ser Arg Pro
66 670 675

Ala Tyr Glu Glu Phe Tyr Asn Cys Arg Ser Ile Asp Ser Glu Phe
68 685 690

Ser Asn Ala Ile Ala Ser Ile Arg His Ala Arg Phe Gly Lys Lys

695 700 705

Ser Arg Pro Ala Met Tyr Asp Val Ser Pro Ile Ala Tyr Glu Asp
710 715 720

Tyr Ser His Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys
725 730 735

Asp Leu

<210> 16
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 16
tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 17
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 17
caggaaacag ctatgaccac ctgcacacct gcaaatccat t 41

<210> 18
<211> 508
<212> DNA
<213> Homo Sapien

<400> 18
ctctggaagg ttacggtcac aggattccaa cagtgctccc tcatagatgg 50

acaaaagtgt gacccctctt tcaggctttc agggggactg gtcctcctgg 100

atgagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150

tctgtgacta agtctattgt ggctttgcac ttaactctgg tggtgaaggt 200

cagcacctgt gtgcccaggg aaagtcacgc aaatgacttg aagtattcag 250

gaaaaggaaa atgcacgacg aagccgtcag agggaacttt ttcctgtacc 300

tatcaagagc agtacgtggt tactttctat gaaaataccc atgcttgcca 350

gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400

aagatgggag caatttcacc tgtgtttgcc ttcctggtta tactggagag 450

ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

tagggag 508

<210> 19
<211> 508
<212> DNA
<213> Homo Sapien

<400> 19
[illegible] 50

[illegible] 100

[illegible] 150

[illegible] 200

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gaaaagaaa atgcaccacg aagccgtcag aggcaacttt ttcctgtacc 300

tgtgagaagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350

gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400

aagatgggag caatttcacc tgtgtttgcc ttcctggtta tactggagag 450

ctttgcaaac cgaactgaga ttggagcgaa cgaactacac cgaactgaga 500

tagggag 508

<210> 20
<211> [illegible]
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 20
[illegible]tggaagg tcacggacac agg [illegible]

<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
[illegible] 24

<210> 22
<211> 69
<212> DNA
<213> Artificial Sequence

<220>

<213> Synthetic oligonucleotide probe

<400> 21
[illegible] acgaa[illegible] [illegible] [illegible] 50

[illegible]

<210> [illegible]
<211> [illegible]
<212> DNA
<213> [illegible]

<400> [illegible]
[illegible] 50

[illegible] 100

[illegible] 150

[illegible] 200

[illegible] 250

[illegible] 300

[illegible] 350

[illegible] 400

[illegible] 450

[illegible] 500

[illegible] 550

[illegible] 600

[illegible] 650

[illegible] 700

[illegible] 750

[illegible] 800

[illegible] 850

[illegible] 900

[illegible] 950

[illegible] 1000

[illegible] 1050

[illegible] 1100

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cccggatgag cagctgagca gttcctgcca ctccgacctc tcacgtctgc 1250

gtcagagaca gagtctgact tcaggccagg aactcactga gattcccata 1300

[illegible] 1350

[illegible] 1400

[illegible] 1450

[illegible] tatttcctga 1500

aataaatgtt ttgaacatag 1520

<210> 24
<211> 43[illegible]
<212> PRT
<213> Homo Sapien

<400> 24

Met Pro Gly Thr Tyr Ala Pro Ser Thr Thr Leu Ser Ser Pro Ser
1 5 10 15

Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe
20 25 30

Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45

Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser
50 55 60

Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
65 70 75

Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
80 85 90

Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
95 100 105

Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
110 115 120

Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
125 130 135

Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
140 145 150

Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Tyr Asn
155 160 165

Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
170 175 180

Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala
185 190 195

Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser
200 205 210

Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Glu Ala Pro Val
215 220 225

Ile Phe Ser His Cys Ala Ala Arg Gly Val Cys Asn Ser Ala Arg
230 235 240

Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly
245 250 255

Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro
260 265 270

Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys
275 280 285

Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp
290 295 300

Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr
305 310 315

Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Gln
320 325 330

Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg
335 340 345

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
350 355 360

Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
365 370 375

Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
380 385 390

Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
395 400 405

Lys Trp Ser Val Ser Glu Ser Ser Pro His Met Ala Pro Val Leu
410 415 420

Ala Val Val Ala Thr Phe Pro Val Leu Ile Leu Trp Leu
425 430

<210> 25
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
agttctcagtc agcctatgtg [illegible] 22

<210> 26
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtgatggtg tctttgtcca tgga 24

<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
ctccaccaat cccgatgaac ttgg 24

<210> 28
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 28
[illegible]agattg acctcatacg ccgcatgtgt gcctcctatt ctgagctgga 50

<210> 29
<211> 1416
<212> DNA
<213> Homo Sapien

<400> 29
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gatccgcggc cgcgaattct aaaccaacat gccgggcacc tacgctccct 100

caaccacact cagtagtccc agcacccagg gcctgcaaga gcaggcacgg 150

gcctgatac aggactt[illegible] [illegible] ggccacaacg acctgcc[illegible] 200

agtcctaaga cagtttacc agaaaagct acagaatgtt aactgcgca 250

atttcagcta cggccagacc aacctgaca gtcttagaaa ttcctcgtg 300

gacgcccact tctggtcagc ctatgtgcca tgccagacc aggacgggga 350

tgccctgcgc ctcacctgg agcagattga cctcatacgc cgcatgtgtg 400

cctcctattc tgagctggag cttgtgacct cggctaaagc tctgaacgac 450

actcagaaat tggcctgcct catcggtgta gagggtggcc actcgctgga 500

caatagcctc tccatcttac gtaccttcta catgctaggg gtgcgctacc 550

[illegible] 600

[illegible] 650

[illegible] 700

[illegible] 750

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tgttcctgat gacatcctgc agcttctgaa gaagaacggt gg cgtcgtga 850

tggtgtcttt gtccatggga gtaatacagt gcaacccatc agccaatgtg 900

tccactgtgg c[illegible]gatcactt cgaccatatc aaggctgtca ttggatccaa 950

gttcatcggg attggtggag attatgatgg ggccggcaaa ttccctcagg 1000

ggctggaaga cgtgtcccac tacccggtcc tgatagagga gttgctgagt 1050

cgtaagctgga gtgagaaaga gcttcagggt gtccttcgtg gaaacctgct 1100

[illegible] 1150

[illegible] 1200

[illegible] 1250

[illegible] 1300

[illegible] 1350

t[illegible]ccagcac ctgaactcct gggggaccg tcagtcttcc tcttcccccc 1400

aaaacccaag gacacc 1416

<210> 36
<211> 446
<212> PRT
<213> Homo Sapien

<400> 36
Met Pro Gly Thr Tyr Ala Pro Ser Thr Thr Leu Ser Ser Pro Ser
1 5 10 15

Thr Gln Gly Leu Gln Gln Gln Ala Arg Ala Leu Met Arg Asp Phe
20 25 30

Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45

Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser

50 55 60

Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
65 70 75

Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
80 85 9

Asp Ala Leu Arg Leu Thr Leu Ser Gln Ile Asp Leu Ile Arg Arg
95 11 12

Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
110 115 12

Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
125 13 14

Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
140 145 15

Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
155 16 17

Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
170 175 180

Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala
185 19 19

Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser
200 20 21

Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val
215 22 22

Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg
230 24 24

Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly
245 25 25

Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro
260 26 27

Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys
275 28 28

Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp
290 29 30

Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr
305 31 31

Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu
320 32 33

Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg
335 340 345

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
350 355 360

Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
365 370 375

Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
380 385 390

Glu Leu Thr Gln Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
395 400 405

Lys Trp Ser Val Ser Glu Ser Ser Pro His Pro Asp Lys Thr His
410 415 420

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
425 430 435

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
440 445

<210> 31
<211> 179[illegible]
<212> DNA
<213> Homo Sapien

<400> 31
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[illegible] 100
[illegible] 150
[illegible] 200
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[illegible] 350
[illegible] caacgcctcc 400
[illegible] 450
[illegible] gctagctcct 500
[illegible] 550
[illegible] 600
[illegible] 650
[illegible] 700
[illegible] 750
ggagg[illegible]cacc aaccg[illegible]ctgg gctctgcccg ctccgatgta [illegible]tcacgctgg 800

atatcctgga tgtggtgacc acggaccccc cgcccgacgt gcacgtgagc 850

cgcgtcgggg gcctggagga ccagctgagc gtgcgctggg tgtcgccacc 900

cgccctcagg aatttctctt ttcaagccaa atacaaat[illegible] ca[illegible]taccgag 950

[illegible] 1000

[illegible] tcgtacaaat 1050

[illegible] 1100

gtgagtcagg ccaccccaca gcc[illegible] [illegible] tcaggcccg 1150

[illegible] cgagtcggg 1200

gccggtgcgg cgcgagctca agcagttcct gggctggctc aagaagcacg 1250

cgtactgctc caacctcagc tttcgcctct acgaccagtg gcgagcctgg 1300

atgcagaagt cgcacaagac cc[illegible]caq gacgaggga t[illegible]gccctc 1350

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aggccaccct ccctgccacg tggagacgca gaggccgaac ccaaactggg 1450

gccacctctg taccctcact tcaggcacc tgagccaccc tcagcaggag 1500

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[illegible] 1600

[illegible] 1650

cattactccc cattacctag gg[illegible]tcca aaaga[illegible] ttttaataaa 1700

[illegible] aaaaaaaaaa aaaaaaaaaa 1750

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 17[illegible]

<210> 32
<211> 422
<212> PRT
<213> Homo Sapien

<400> 32

Met Pro Ala Gly Arg Arg Gly Pro Ala Ala Gln Ser Ala Arg Arg
1 5 10 15

Pro Pro Pro Leu Leu Pro Leu Leu Leu Leu Leu Cys Val Leu Gly
20 25 30

Ala Pro Arg Ala Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro
35 40 45

Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Leu Ala Thr Cys
50 55 60

Ser Val His Gly Asp Pro Pro Gly Ala Thr Ala Glu Gly Leu Tyr
65 70 75

Trp Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val
80 85 90

Leu Asn Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly
95 100 105

Ser Arg Gln Arg Ser Gly Arg Asn Leu Val Tyr His Ala Arg Arg
110 115 120

Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro
125 130 135

Glu Lys Pro Val Asn Ile Ser Cys Trp Ser Lys Asn Met Lys Asp
140 145 150

Leu Thr Cys Arg Trp Thr Pro Gly Ala His Gly Glu Thr Phe Leu
155 160 165

His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu Arg Trp Tyr Gly Gln
170 175 180

Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys
185 190 195

His Ile Pro Lys Asp Leu Ala Leu Phe Thr Pro Tyr Glu Ile Trp
200 205 210

Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg Ser Asp Val Leu
215 220 225

Thr Leu Asp Ile Leu Asp Val Val Thr Thr Asp Pro Pro Pro Asp
230 235 240

Val His Val Ser Arg Val Gly Gly Leu Gln Asp Gln Leu Ser Val
245 250 255

Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala
260 265 270

Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys
275 280 285

Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly
290 295 300

Leu Lys Pro Gly Thr Val Tyr His Val Gln Val Arg Cys Asn Pro
305 310 315

Phe Gly Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp
320 325 330

Ser His Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly
335 340 345

Pro Gly Gly Gly Ala Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser

350 355 360

Gly Pro Val Arg Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys
365 370 375

Lys His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln
380 385 390

Trp Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln Asp
395 400 405

Gln Gly Ile Leu Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro
410 415 420

Ala Arg

<210> 33
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
cccgcccgac gtgcacgtga gct 23

<210> 34
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 34
tgagccagcc caggaactgc ttg 23

<210> 35
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 35
[illegible] 50

<210> 36
<211> 1771
<212> DNA
<213> Homo Sapien

<400> 36
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agtggtaaaa aaaaaaaaaa acacaccaaa cgctcgcagc cacaaaaggg 100

atgaaatttc ttctggacat cctcctgctt ctcccgttac tgatcgt[illegible]g 150

ctccctaaag tctttcatga agctttttat t[illegible]t[illegible]aagag agaaaat[illegible]ag 200

[illegible] 250

[illegible] 300

[illegible] 350

[illegible] 400

[illegible] 450

agtaaataat g[illegible]tag tctatacatc aaatttgttt gctacacaag 500

atcctcagat tgaaaagact tttgaagtta atgtacttgc acatttctgg 550

act[illegible]caaagg catttcttc[illegible] tgcaatgacg aagaataac[illegible] at[illegible]tat 600

tgtcactgtg gctttcgcag ctggacatgt ct[illegible]ggtcccc tttcttatgg 650

cttactgttc aagcaagttt gctgctgttg gatttcataa aactttgaca 700

gatgaactgg ct[illegible]ccttaca aataactgga gtcaaaacaa catgtctgtg 750

[illegible] 800

[illegible] 850

[illegible] 900

[illegible] 950

[illegible] 1000

[illegible] 1050

tct[illegible]atagtg c[illegible]agaatttt aatgtttgaa [illegible]ttctgtttt tt[illegible]taattat 1100

ccc[illegible]atttct t[illegible]aatatcat ttttgaggct ttggcatcct t[illegible]atttacta 1150

ccatttattc tttagccaaa agatgattac atat[illegible]atata aacaagaaa 1200

t[illegible]ccttttaga ggtg[illegible]cttta aaaaaaatga agaaaagaa ccaaaatgac 1250

[illegible] 1300

[illegible] 1350

[illegible] 1400

a[illegible]aaacttca agct[illegible]tctaa ataaaatgaa [illegible] 1450

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gccactctgt ttcctgagag atacctcaca ttccaatgcc aaacatttct 1550

gtttagggaa gctagaggtg gatacacgtg ttgcaagtat aaaagcatca 1600

ctgggattta aggagatttg agagaatgta gccacaaatg gcagcaataa 1650

[illegible]

[illegible]

[illegible]

<210> [illegible]7
<211> [illegible]00
<212> PRT
<213> Homo Sapien

<400> [illegible]7
Met Lys Phe Leu Leu Asp Ile Leu Leu Leu Leu Pro Leu Leu Ile
1 5 10 15

Val Cys Ser Leu Glu Ser Phe Val Lys Leu Phe Ile Pro Lys Arg
20 25 30

Arg Lys Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly
35 40 45

His Gly Ile Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys
50 55 60

Ser Lys Leu Val Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu
65 70 75

Thr Ala Ala Lys Cys Lys Gly Leu Gly Ala Lys Val His Thr Phe
80 85 90

Val Val Asp Cys Ser Asn Arg Glu Asp Ile Tyr Ser Ser Ala Lys
95 100 105

Lys Val Lys Ala Glu Ile Gly Asp Val Ser Ile Leu Val Asn Asn
110 115 120

Ala Gly Val Val Tyr Thr Ser Asp Leu Phe Ala Thr Gln Asp Pro
125 130 135

Gln Ile Glu Lys Thr Phe Glu Val Asn Val Leu Ala His Phe Trp
140 145 150

Thr Thr Lys Ala Phe Leu Pro Ala Met Thr Lys Asn Asn His Gly
155 160 165

His Ile Val Thr Val Ala Ser Ala Ala Gly His Val Ser Val Pro
170 175 180

Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala Val Gly Phe
185 190 195

His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile Thr Gly

200 205 210

Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe
215 220 225

Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu
230 235 240

Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys
245 250 255

Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu
260 265 270

Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile
275 280 285

Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln
290 295 300

<210> 38
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 38
ggtgaaggca gaaattggag atg 23

<210> 39
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 39
atcccatgca tcag[illegible]gtt [illegible]acc 24

<210> 40
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 40
[illegible] 48

<210> 41
<211> 1377
<212> DNA
<213> Homo Sapien

<400> 41

<210> 42

<211> 243
<212> PRT
<213> Homo Sapien

<400> 42
Met Arg Pro Leu Leu Val Leu Leu Leu Leu Gly Leu Ala Ala Gly
1 5 10 15

Ser Pro Pro Leu Asp Asp Asn Lys Ile Pro Ser Leu Tyr Pro Gly
20 25 30

His Pro Gly Leu Pro Gly Thr Pro Gly His His Gly Pro Gln Gly
35 40 45

Leu Pro Gly Arg Asp Gly Arg Asp Gly Arg Asp Gly Ala Pro Gly
50 55 60

Ala Pro Gly Glu Lys Gly Glu Gly Gly Arg Pro Gly Leu Pro Gly
65 70 75

Pro Arg Gly Asp Pro Gly Pro Arg Gly Glu Ala Gly Pro Ala Gly
80 85 90

Pro Thr Gly Pro Ala Gly Glu Cys Ser Val Pro Pro Arg Ser Ala
95 100 105

Phe Ser Ala Lys Arg Ser Glu Ser Arg Val Pro Pro Pro Ser Asp
110 115 120

Ala Pro Leu Pro Phe Asp Arg Val Leu Val Asn Glu Gln Gly His
125 130 135

Tyr Asp Ala Val Thr Gly Lys Phe Thr Cys Gln Val Pro Gly Val
140 145 150

Tyr Tyr Phe Ala Val His Ala Thr Val Tyr Arg Ala Ser Leu Gln
155 160 165

Phe Asp Leu Val Lys Asn Gly Gln Ser Ile Ala Ser Phe Phe Gln
170 175 180

Phe Phe Gly Gly Trp Pro Lys Pro Ala Ser Leu Ser Gly Gly Ala
185 190 195

Met Val Arg Leu Glu Pro Glu Asp Gln Val Trp Val Gln Val Gly
200 205 210

Val Gly Asp Tyr Ile Gly Ile Tyr Ala Ser Ile Lys Thr Asp Ser
215 220 225

Thr Phe Ser Gly Phe Leu Val Tyr Ser Asp Trp His Ser Pro Pro
230 235 240

Val Phe Ala

<210> 43
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
[illegible] atcagaacca [illegible] 24

<210> 44
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 44
agccagcctc gctctcgg 18

<210> 45
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 45
atctgcaatc aggtctga 18

<210> 46
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 46
aaaagaggca atggattcac 20

<210> 47
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
[illegible] 24

<210> 48
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
[illegible] [illegible] [illegible] gtcggagta [illegible] [illegible] 45

<210> 44
<211> 18[illegible]
<212> DNA
<213> Homo Sapien

<400> 44
ctcttttgtc caccagctca gcctgactcc tggagattgt [illegible] 50

[illegible] [illegible] [illegible] [illegible] tg[illegible]ggac 100

actgacggc c[illegible] ccatgctgca tccagagacc tcccctggcc 150

gggggcatct cctg[illegible] [illegible] t[illegible]tggcac cacctgggca 200

gaggtgtggc cacccaa[illegible] gcaggagcag gctcccgatgg ccggagccct 250

gaacaggaag gagagtttcc tgctcctctc cctcacacaac cgcctgcgca 300

gctgggtcca gccccctgcg gctgacatgc ggagg[illegible] ctggagtgac 350

aacctggccc aactgactca agccagggca gcc[illegible]tgtg gaatcccaac 400

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 450

tgcaactgct [illegible] ttggcatcct tt[illegible]ttaaat ga[illegible]cagacta 500

[illegible] [illegible] [illegible] [illegible] [illegible] 550

[illegible] [illegible] acaccagct [illegible] [illegible] 600

[illegible] [illegible] [illegible] [illegible] [illegible] 650

[illegible] [illegible] [illegible] [illegible] [illegible] 700

gacaatcatc ccctataaga agggtgcctg gtgttcactc tgcacagcca 750

[illegible] [illegible] [illegible] [illegible] [illegible]tgtaag 800

[illegible]gga atccttgttg cataagctgc cagaacctg gaggtctcaa 850

[illegible] tgccatgac actatcccc tggctaccca gcagatact 900

[illegible] [illegible] [illegible] [illegible] [illegible] 950

[illegible] [illegible] [illegible] [illegible] [illegible] 1000

[illegible] [illegible] [illegible] [illegible] [illegible] 1050

gcttcatggt gt[illegible]tcagag gcagaca[illegible] attacagagc cagga[illegible]aaa 1100

tctcagagga aagcggggt gctggcccag atcaagagcc agaaagtgca 1150

ggacatcctc gccttctatc tgggccgcct ggagaccacc aacgaggtga 1200

ctgacagtga cttcgagacc aggaacttct ggatcgggct cacctacaag 1250

accgccaagg actccttccg ctgggccaca ggggagcacc aggccttcac 1300

caatttggcc [illegible] ctgacaacca [illegible] 1350

gtgccatgag atttgg[illegible] tgc[illegible] [illegible] agct[illegible] 1400

aatgaaaag [illegible] caaa[illegible] [illegible] [illegible] 14[illegible]

tgccaaaag cacat[illegible] ggtcaggccc agg[illegible] gg[illegible] 15[illegible]

catggctcc tcgcctgc[illegible] tgggacac[illegible] ggct[illegible] [illegible] 1550

gcac[illegible] aggacaagaa ccaggttaag accacatgcc tcatgtccaa 1600

agaggtgtca gacctgcac aatgccagaa gttgggcaga gagaggcagg 1650

gagaccaatg aggccagag agtgagtgtt agaagacggt gggaccctt[illegible] 1700

gcctgctttt gattgggaag atgggcttca attagatagc gaaggagagg 1750

acaccgccag tggtccaaaa aggcagctct cttccacctg gcccagaccc 1800

tctgggcag cggagcttcc ctgtggcatg aaccccacgg ggtattaaat 1850

tatgaatcag ctgaaaaaaa aaaaa 1875

<210> 59
<211> 459
<212> PRT
<213> Homo Sapien

<400> 59
Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala
1 5 10 15

Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro
20 25 30

Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg
35 40 45

Lys Glu Ser Phe Leu Leu Leu Ser Leu His Asn Arg Leu Arg Ser
50 55 60

Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser
65 70 75

Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly
80 85 90

Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln
95 100 105

Val Gly Trp Asn Met Gln Leu Leu Pro Ala Gly Leu Ala Ser Phe

110 115 120

Val Glu Val Val Ser Leu Trp Phe Ala Glu Gly Gln Arg Tyr Ser
125 130 135

His Ala Ala Gly Glu Cys Ala Arg Asn Ala Thr Cys Thr His Tyr
140 145

Thr Gln Leu Val Trp Ala Thr Ser Ser Gln Leu Gly Cys Gly Arg
155 160

His Leu Cys Ser Ala Gly His Thr Ala Ile Gln Ala Phe Val Cys
170 175

Ala Tyr Ser Pro Gly Gly Asn Trp Glu Val Asn Gly Lys Thr Leu
185 190

Ile Pro Tyr Lys Lys Gly Ala Trp Cys Ser Leu Cys Thr Ala Ser
200 205

Val Ser Gly Cys Phe Lys Ala Trp Asp His Ala Gly Gly Leu Cys
215

Glu Val Pro Arg Asn Pro Cys Arg Met Ser Cys Gln Asn His Gly
230 235 240

Arg Leu Asn Ile Ser Thr Cys His Cys His Cys Pro Pro Gly Tyr
245 250 255

Thr Gly Arg Tyr Cys Gln Val Arg Cys Ser Leu Gln Cys Val His
260 265 270

Gly Arg Phe Arg Gln Gln Gln Cys Ser Cys Val Cys Arg Ile Gly
275 280

Tyr Gly Gly Ala Gln Cys Ala Thr Lys Val His Phe Pro Phe His
290 295

Thr Cys Asp Leu Arg Ile Asp Gly Asp Cys Phe Met Val Ser Ser
305 310 315

Glu Ala Asp Thr Tyr Tyr Arg Ala Arg Met Lys Cys Gln Arg Lys
320 325 330

Gly Gly Val Leu Ala Gln Ile Lys Ser Gln Lys Val Gln Asp Ile
335 340 345

Leu Ala Phe Tyr Leu Gly Arg Leu Glu Thr Thr Asn Glu Val Thr
350 355

Asp Ser Asp Phe Glu Thr Arg Asn Phe Trp Ile Gly Leu Thr Tyr
365 370

Lys Thr Ala Lys Asp Ser Phe Arg Trp Ala Thr Gly Glu His Gln
380 385

Ala Phe Thr Ser Phe Ala Phe Gly Gln Pro Asp Asn His Gly Leu
395 400 405

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu
410 415 420

Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr
425 430 435

Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Gln His Ile Ser Arg
440 445 450

Trp Gly [illegible] Gly Ser
455

<210> 51
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 51
[illegible]aacttct ggatcggg[illegible] [illegible]cacc 24

<210> 52
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 52
[illegible] [illegible] [illegible] 24

<210> 53
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
g[illegible]aaggact [illegible] ggc[illegible]caggg gag[illegible]accagg cctt[illegible] 45

<210> 54
<211> 2331
<212> DNA
<213> Homo Sapiens

<400> 54
[illegible] 50

[illegible] ct[illegible]ctgggg[illegible] [illegible]tgcctgg[illegible] 100

[illegible] [illegible]ggaaga g[illegible]cagagc tgggg[illegible]cact 150

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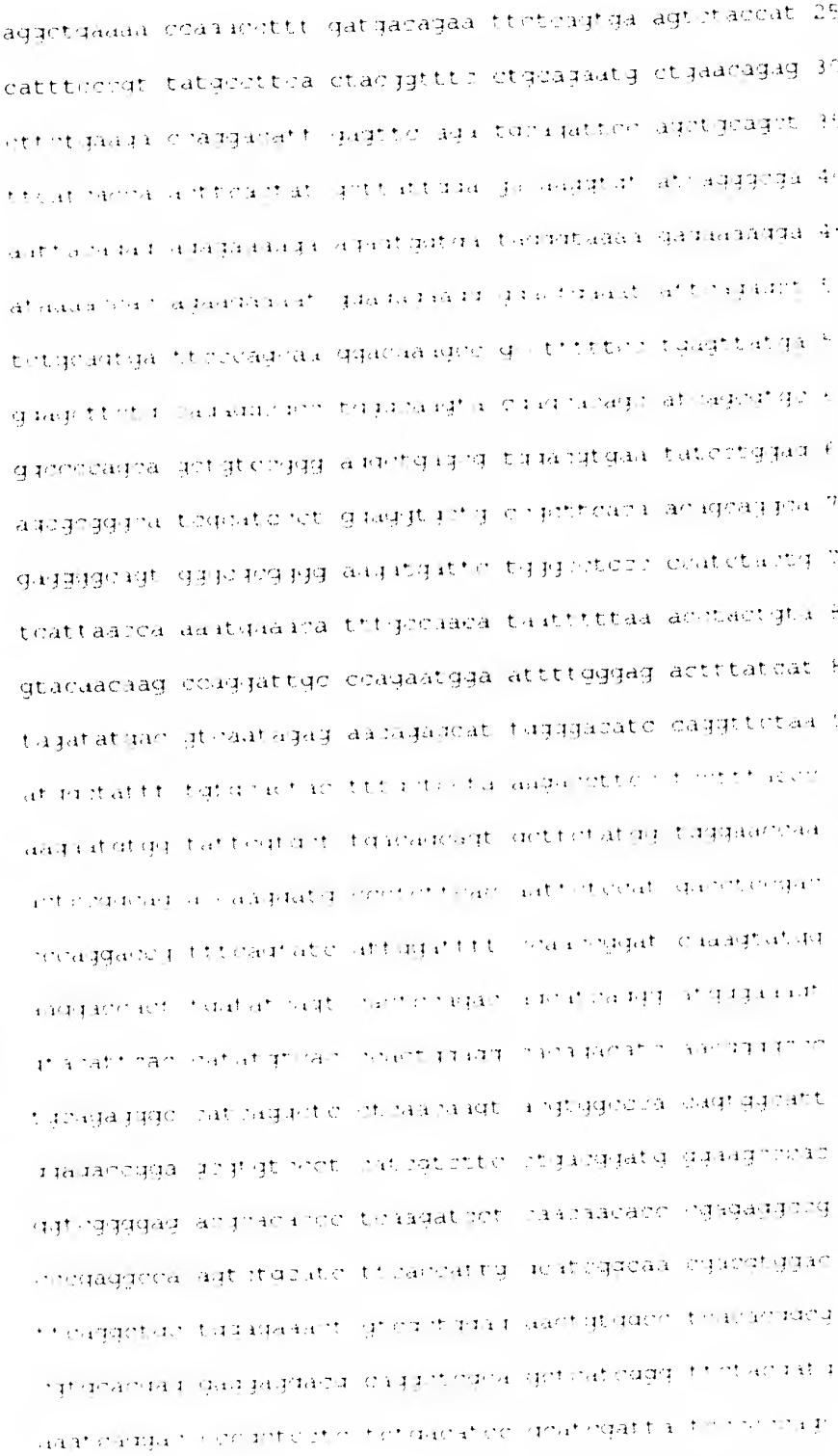

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gatgtgcctg tgcggcctca gaaggcaggg aaagatgtca caggaagccc 1750

caggcctgga ggcgatggag aggggacac caacacatc gagcgtctct 1800

[illegible] 1850

[illegible] 1900

[illegible] 1950

tcccacctat gaatggcctg gaaaagcccc acggcatctc ggtcacatg 2000

ggaccegaac cagtggtgca gaactgcgga agcctcagca cgcaacagg 2050

acctttcctc aagaagccaa actccgtcaa aaaaaacaa aacaaaacaa 2100

aaaaaaaaca tggaagagat ggtgtttttc ctctcacca cctgaggata 2150

cgatgaaaag atggccacct gcaagccagg aagacggccc tcacaagaca 2200

ccatgtctgc tggcaccttg atcttggacc tcccaacctc cagaactgtg 2250

agaaataaat gtgtttgtt taagctaaaa aaaaaaaaaa aaaaaaaaaa 2300

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2331

<210> 55
<211> 694
<212> PRT
<213> Homo Sapien

<400> 55

Met Leu Leu Leu Leu Gly Leu Cys Leu Gly Leu Ser Leu Cys Val
1 5 10 15

Gly Ser Gln Glu Glu Ala Gln Ser Trp Gly His Ser Ser Glu Gln
20 25 30

Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
35 40 45

Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
50 55 60

Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
65 70 75

Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
80 85 90

Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
95 100 105

Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
110 115 120

Arg Val Lys Glu Lys Arg Asn Lys Thr Thr Glu Glu Asn Gly Glu
125 130 135

Lys Gly Thr Glu Ile Phe Arg Ala Ser Ala Val Ile Pro Ser Lys
140 145 150

Asp Lys Ala Ala Phe Phe Leu Ser Tyr Gln Gln Leu Leu Gln Arg
155 160 165

Arg Leu Gly Lys Tyr Gln His Ser Ile [illegible]
170 175 180

Leu Ser Gly Arg Leu Ser Val Asp Val Asn Ile Leu [illegible]
185 190 195

Gly Ile Ala Ser Leu Glu Val Leu Pro Leu His Asn Ser Arg Gln
200 205 210

Arg Gly Ser Gly Arg Gly Glu Asp Asp Ser Gly Pro Pro Pro Ser
215 220 225

Thr Val Ile Asn Gln Asn Glu Thr Phe Ala Asn Ile Ile Phe Lys
230 235 240

Pro Thr Val Val Gln Gln Ala Arg Ile Ala Gln Asn Gly Ile Leu
245 250 255

Gly Asp Phe Ile Ile Arg Tyr Asp Val Asn Arg Gln Gln Ser Ile
260 265 270

Gly Asp Ile Gln Val Leu Asn Gly Tyr Phe Val His Tyr Phe Ala
275 280 285

Pro Lys Asp Leu Pro Pro Leu Pro Lys Asn Val Val Phe Val Leu
290 295 300

Asp Ser Ser Ala Ser Met Val Gly Thr Lys Leu Arg Gln Thr Lys
305 310 315

Asp Ala Leu Phe Thr Ile Leu His Asp Leu Arg Pro Gln Asp Arg
320 325 330

Phe Ser Ile Ile Gly Phe Ser Asn Arg Ile Lys Val Trp Lys Asp
335 340 345

His Leu Ile Ser Val Thr Pro Asp Ser Ile Arg Asp Gly Lys Val
350 355 360

Tyr Ile His His Met Ser Pro Thr Gly Gly Thr Asp Ile Asn Gly
365 370 375

Ala Leu Gln Arg Ala Ile Arg Leu Leu Asn Lys Tyr Val Ala His
380 385 390

Ser Gly Ile Gly Asp Arg Ser Val Ser Leu Ile Val Phe Leu Thr
395 400 405

Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu Lys Ile Leu

415 420 425 430 435

Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr

440 445 450 455 460

Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu

465 470 475 480 485

Ser Leu Gln Asn Cys Gly Leu Thr Arg Arg Val His Gln Glu Ile

490 495 500 505 510

Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Gln Ile Arg Thr

515 520 525 530 535

Pro Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Tyr Ser Ser Val

540 545 550 555 560

Val Gln Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser

565 570 575 580 585

Glu Ile Ile Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His

590 595 600 605 610

Leu His Val Glu Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile

615 620 625 630 635

Leu Lys Thr Asp Val Pro Val Arg Pro Gln Lys Ala Gly Lys Asp

640 645 650 655 660

Val Thr Gly Ser Pro Arg Pro Gly Gly Asp Gly Glu Gly Asp Thr

665 670 675 680 685

Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr Thr Lys Glu Leu

690 695 700 705 710

Leu Ser Ser Trp Leu Gln Ser Asp Asp Gln Pro Glu Lys Glu Arg

715 720 725 730 735

Leu Arg Gln Arg Ala Glu Ala Leu Ala Val Ser Tyr Arg Phe Leu

740 745 750 755 760

Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg Met

765 770 775 780 785

Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro

790 795 800 805 810

Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly

815 820 825 830 835

Pro Leu Leu Lys Lys Pro Asn Ser Val Lys Lys Lys Glu Asn Lys

840 845 850 855 860

Thr Lys Lys Arg His Gly Arg Asp Gly Val Phe Pro Leu His His

865 870 875 880 885

Leu Gly Ile Arg

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
[illegible] 24

<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
[illegible] 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatatc agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 141[illegible]
<212> DNA
<213> Homo Sapien

<400> 60
[illegible] 50

[illegible] 100

[illegible] 150

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ccaacaggca gaccatttat ttcagggact tcaggccttt gaaggacagc 300

[illegible] tgctgaattt ttctagcagt [illegible] 350

[illegible] 400

[illegible] 450

[illegible] 500

[illegible] 550

[illegible] 600

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gaacgatgga gtcccagtga tctgccaggt ggagcacct [illegible] 700

gaacctgca gacccagcga [illegible] 750

cacattcaga tgacttatcc tctacaaggc ttaacccggg aaggggacgc 800

gcttgagtta acatgtgaag ccatcgggaa gccccagcct gtgatggtaa 850

cttgggtaag atcgatgat gaaatgcctc [illegible] actgtctggg 900

[illegible] 950

[illegible] 1000

[illegible] 1050

[illegible] 1100

[illegible] 1150

[illegible] 1200

gaggcgcatt ttgccagaca taaagataca [illegible] atgaagccaa 1250

aggagccgat gacgcagcag acgcagacac [illegible] aatgcagaag 1300

aggacagaa [illegible] agtact [illegible] ctagatcagc 1350

cttttgttt caatgaagta [illegible] gataaagaa 1400

[illegible] 1417

<210> 41
<211> 447
<212> PRT
<213> Homo Sapien

<400> 41
Met Ala Ser Val Val Leu Pro Ser Gly Ser Gln Cys Ala Ala Ala
1 5 10 15

Ala Ala Ala Ala Ala Pro Pro Gly Leu Arg Leu Leu Leu Leu Leu
35 40

Phe Ser Ala Ala Ala Leu Ile Pro Thr Gly Asp Gly Gln Asn Leu
50 55 60

Phe Thr Lys Asp Val Thr Val Ile Gln Gly Gln Val Ala Thr Ile
65 70

Ser Cys Gln Val Asn Lys Ser Asp Asp Ser Val Ile Gln Leu Leu
80

Asn Pro Asn Arg Gln Thr Ile Tyr Phe Arg Asp Phe Arg Pro Leu
85 90

Lys Asp Ser Arg Phe Gln Leu Leu Asn Phe Ser Ser Ser Glu Leu
95 100 105

Lys Val Ser Leu Thr Asn Val Ser Ile Ser Asp Glu Gly Arg Tyr
110 115 120

Phe Cys Gln Leu Tyr Thr Asp Pro Pro Gln Glu Ser Tyr Thr Thr
125 130 135

Ile Thr Val Leu Val Pro Pro Arg Asn Leu Met Ile Asp Ile Gln
140 145 150

Lys Asp Thr Ala Val Glu Gly Glu Glu Ile Glu Val Asn Cys Thr
155 160 165

Ala Met Ala Ser Lys Pro Ala Thr Thr Ile Arg Trp Phe Lys Gly
170 175 180

Asn Thr Glu Leu Lys Gly Lys Ser Glu Val Glu Glu Trp Ser Asp
185 190 195

Met Tyr Thr Val Thr Ser Glu Leu Met Leu Lys Val His Lys Glu
200 205 210

Asp Asp Gly Val Pro Val Ile Cys Gln Val Glu His Pro Ala Val
215 220 225

Thr Gly Asn Leu Gln Thr Gln Arg Tyr Leu Glu Val Gln Tyr Lys
230 235 240

Pro Gln Val His Ile Gln Met Thr Tyr Pro Leu Gln Gly Leu Thr
245 250 255

Arg Glu Gly Asp Ala Leu Glu Leu Thr Cys Glu Ala Ile Gly Lys
260 265 270

Pro Gln Pro Val Met Val Thr Trp Val Arg Val Asp Asp Glu Met
275 280 285

Pro Gln His Ala Val Leu Ser Gly Pro Asn Leu Phe Ile Asn Asn
290 295 300

Leu Asn Lys Thr Asp Asn Gly Thr Tyr Arg Cys Glu Ala Ser Asn

305 310 315

Ile Val Gly Lys Ala His Ser Asp Tyr Met Leu Tyr Val Tyr Asp
320 325 330

Pro Pro Thr Thr Ile Pro Pro Pro Thr Thr Thr Thr Thr Thr Thr
335 340 345

Thr Thr Thr Thr Thr Thr Ile Leu Thr Ile Ile Thr Asp Ser Ala
350 355 360

Ala Gly Gln Gln Gly Ser Ile Arg Ala Val Asp His Ala Val Ile
365 370 375

Gly Gly Val Val Ala Val Val Val Phe Ala Met Leu Cys Leu Leu
380 385 390

Ile Ile Leu Gly Arg Tyr Phe Ala Arg His Lys Gly Thr Tyr Phe
395 400 405

Thr His Glu Ala Lys Gly Ala Asp Asp Ala Ala Asp Ala Asp Thr
410 415 420

Ala Ile Ile Asn Ala Glu Gly Gly Gln Asn Asn Ser Glu Glu Lys
425 430 435

Lys Glu Tyr Phe Ile
440

<210> 62
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 62
[illegible] 24

<210> 63
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 63
[illegible] 20

<210> 64
<211> 20
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 64
at[illegible] 20

<210> 65
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
[illegible] 24

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 66
atagctgtgt ctgcgtctgc tgcg 24

<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 67
[illegible] 50

<210> 68
<211> 2555
<212> DNA
<213> Homo Sapien

<400> 68
[illegible] tgcttcggga [illegible] 50

[illegible] 100

[illegible] 150

[illegible] 200

[illegible] 250

[illegible] 300

[illegible] 350

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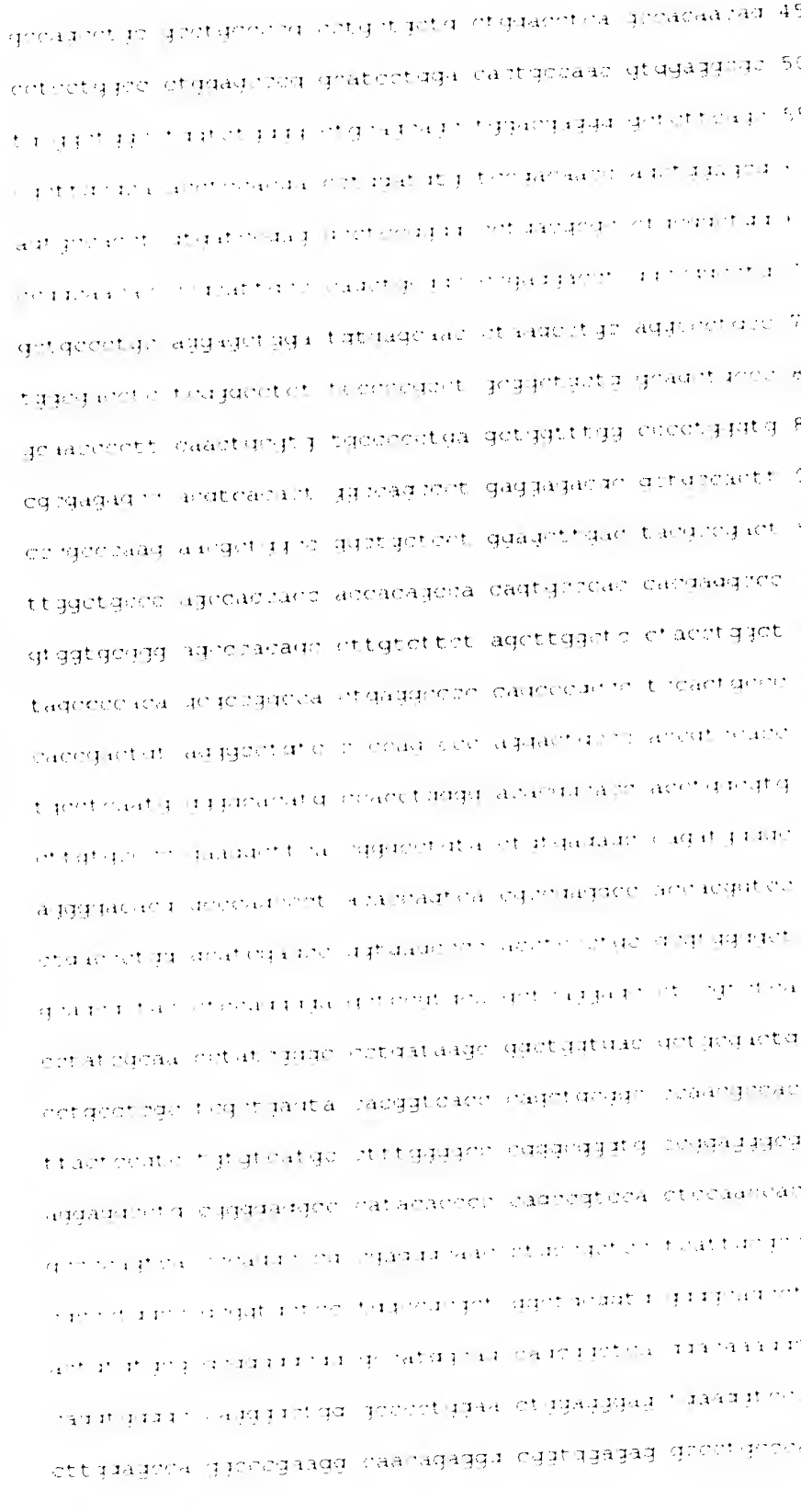

gccagtctaa gtgtgaggtc ccactcatgc gcttcccaga gcctggcctc 1900

cagtcacccc tccacacaaa gccctacatc taaaccaaag agagacaggg 1950

[illegible] 2000

[illegible] 2050

[illegible] 2100

[illegible] 2150

agtgcctatg aggacagtgt ccgcctgcc ctccgcaacg tccagt[illegible] 2200

gagcaggcg ggccctgcca tgtgctggta acacat[illegible] gggccctgct 2250

gggctctccc actccagggg gaccctgggg gcccagtcag gaagctcccg 2300

gaaagagcag agggagaggg ggtaggcggc tgtgtgactc tagtcttggc 2350

cccaggaagc gaaggaacaa aagaaactgg aaaggaagat gctttaggaa 2400

catgtttgc tttttaaaa tatatatata tttataagag atcctttccc 2450

atttattctg ggaagatgtt tttcaaactc agagacaagg actttggttt 2500

ttgtaagaca aacgatgata tgaaggcctt ttgtaagaaa aaataaaaaa 2550

aaaaa 2555

<210> 69
<211> 598
<212> PRT
<213> Homo sapien

<400> 69
Met Cys Ser Arg Val Pro Leu Leu Leu Pro Leu Leu Leu Leu Leu
1   5   10   15

Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln Cys
                20   25   30

Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
                35   40   45

Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
                50   55   60

Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
                65   70   75

Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
                80   85   90

Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
                95   100   105

Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu

110 115 120

Ala Leu Arg Leu Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly
125 130 135

Leu Phe Ser Arg Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp
140 145 150

Asn Gln Leu Ser Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly
155 160 165

Leu Thr Arg Leu Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu
170 175 180

Arg Pro Glu Asp Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp
185 190 195

Val Ser Asn Leu Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly
200 205 210

Leu Phe Pro Arg Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe
215 220 225

Asn Cys Val Cys Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu
230 235 240

Ser His Val Thr Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe
245 250 255

Pro Pro Lys Asn Ala Gly Arg Leu Leu Leu Glu Leu Asp Tyr Ala
260 265 270

Asp Phe Gly Cys Pro Ala Thr Thr Thr Thr Ala Thr Val Pro Thr
275 280 285

Thr Arg Pro Val Val Arg Glu Pro Thr Ala Leu Ser Ser Ser Leu
290 295 300

Ala Pro Thr Trp Leu Ser Pro Thr Ala Pro Ala Thr Glu Ala Pro
305 310 315

Ser Pro Pro Ser Thr Ala Pro Pro Thr Val Gly Pro Val Pro Gln
320 325 330

Pro Gln Asp Cys Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys
335 340 345

His Leu Gly Thr Arg His His Leu Ala Cys Leu Cys Pro Gln Gly
350 355 360

Phe Thr Gly Leu Tyr Cys Glu Ser Gln Met Gly Gln Gly Thr Arg
365 370 375

Pro Ser Pro Thr Pro Val Thr Pro Ala Pro Pro Arg Ser Leu Thr
380 385 390

Leu Gly Ile Gln Pro Val Ser Pro Thr Ser Leu Arg Val Gly Leu
395 400 405

Gln Arg Tyr Leu Gln Gly Ser Ser Val Gln Leu Arg Ser Leu Arg
410 415 42

Leu Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Asn Leu Val Thr
425 43

Leu Arg Leu Ile Ala Pro Leu Ala His Tyr Thr Val Thr Gln Leu
44 445 4

Arg Ile Asn Asn Ala Thr Tyr Ser Val Cys Val Met Ile Leu Gly Ile
460 47

Gly Arg Val Ile Glu Gly Glu Glu Ala Cys Gly Glu Ala His Thr
475 480

Pro Pro Ala Val His Ser Asn His Ala Pro Val Thr Gln Ala Arg
485 490 4

Glu Gly Asn Leu Pro Leu Leu Ile Ala Pro Ala Leu Ala Ala Val
500 505 51

Leu Leu Ala Ala Leu Ala Ala Val Gly Ala Ala Tyr Cys Val Arg
515 520 525

Arg Gly Arg Ala Met Ala Ala Ala Ala Gln Asp Lys Gly Gln Val
530 535 54

Gly Pro Gly Ala Gly Pro Leu Glu Leu Glu Gly Val Lys Val Pro
545 550

Leu Glu Pro Gly Pro Lys Ala Thr Glu Gly Gly Gly Glu Ala Leu
565 57

Pro Ser Gly Pro Glu Cys Glu Val Pro Leu Met Gly Phe Pro Gly
580 585 59

Pro Gly Leu Glu Ser Pro Leu His Ala Lys Pro Tyr Ile
595 600

<210> 70
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
[illegible] to 24

<210> 71
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 71
cggttctggg gacgttaggg ctcg 24

<210> 72
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 72
ctacccacgg tccacctacc tcaat 25

<210> 73
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 73
aggactgccc accgtcccac tgcctcaatg ggggcacatg ccacc 45

<210> 74
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 74
acggaaagcc ctacatctac gccagagaaa gacagggcag ctggg 45

<210> 75
<211> 1077
<212> DNA
<213> Homo Sapien

<400> 75
ggcactagga caaccttctt cccttctgca ccactgcccg taccttacc 50

cgcccgcca [illegible] acccactct tgaaaccaca gctgttggca 100

gggtcccaa [illegible] cctcatctcc tttcttgcta gccccaaag 150

[illegible] 200

[illegible] 250

[illegible] 300

[illegible] 350

tggcaaagtc tcccggagca gagttccgat gccctggaa cctgggagaa 400

tggggaagaa tcccggaaaa agagagcagt actcaa[illegible] aaacaaaaaa 450

agcagcactc tgtcctgcac ctggttccca ttaacgcc[illegible] ctccaaggat 500

gactc[illegible] tgacagaggt [illegible] 550

[illegible] 600

atctgctata [illegible] 650

[illegible] 700

tataagaagt atgccctccc accccaaccg ggcctaaaac aactgctata 750

gggcaggtgt cttccattta caccaagggg atattctcaa tgtcatcatt 800

cccgggcaa gggcgaaact taacctctct ccacatgaaa cctttcctggg 850

atttgtgaaa ctgtgattgt gttataaaaa gtggctccca gcttggaaga 900

ccagggtggg tacatactgg agacagccaa gagctgaata tataaaggag 950

agggaatgtg caggaacaga ggcatcttcc tgggtttggc tccccgttcc 1000

tcactttttcc cttttcattc ccacccccta gactttgatt ttacggatat 1050

cttgcttctg ttcccatgg agctccg 1077

<210> 76
<211> 250
<212> PRT
<213> Homo Sapien

<400> 76
Met Pro Ala Ser Ser Pro Phe Leu Leu Ala Pro Lys Gly Pro Pro
1   5   10   15

Gly Asn Met Gly Gly Pro Val Arg Glu Pro Ala Leu Ser Val Ala
                20   25   30

Leu Trp Leu Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala
                35   40   45

Met Ala Leu Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg
                50   55   60

Glu Val Ser Arg Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly
                65   70   75

Glu Gly Tyr Pro Trp Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala
                80   85   90

Leu Glu Ala Trp Glu Asn Gly Glu Arg Ser Arg Lys Arg Arg Ala
                95   100   105

Val Leu Thr Gln Lys Gln Lys Lys Gln His Ser Val Leu His Leu
                110   115   120

Val Pro Ile Asn Ala Thr Ser Lys Asp Asp Ser Asp Val Thr Glu
125 130 135

Val Met Trp Gln Pro Ala Leu Arg Arg Gly Arg Gly Leu Gln Ala
140 145 150

Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly Val Tyr Leu Leu
155 160 165

Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr Met Gly Gln
170 175 180

Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu Phe Arg
185 190 195

Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn Ser
200 205 210

Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu
215 220 225

Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro
230 235 240

His Gly Thr Phe Leu Gly Phe Val Lys Leu
245 250

<210> 77
<211> 2849
<212> DNA
<213> Homo Sapiens

<400> 77
cactttct [illegible] ttcegcttct 50

[illegible] tgctgtaagt 100

gaggggacc [illegible] tcttctgcac 150

[illegible] tcacgagtc 200

tgtgcatcgc cccggacctg gctgggaaa ggcttggccg gcgggagatg 250

ctctaggga [illegible] gaacggccag [illegible] ggcccggcag 300

gaagatggg [illegible] aggacctt [illegible] tgcctgctcc 350

[illegible] 400

gaacagcagg [illegible] 450

[illegible] 500

aggggtccc tgcttccgga [illegible] 550

atgtacccga [illegible] gcccagatc [illegible] tcttgaaagg 600

ggagaagggt accgcggag atcgaggcct ccaagggaaa tatggcaaaa 650

ctatttttta taaaacacct caaacagcac tgcagtctcc catctcctcg 2150

tgggctaagc atcaacgctt ccacgtgtgt tgtattggtt ggcagtaagg 2200

[illegible]

[illegible]

[illegible]

[illegible]

gaattcactc tcaggagctg ggtgacagga gacggaatag [illegible] 2450

aattgcagga ccagctagag caggcttgca gtctctccac [illegible] 2500

ccctgcccat ggccacccca gactctgatc tccaggaacc ccatagctcc 2550

tctccacctc accccatgtt gatgcccagg gtcactcttg ctacccgttg 2600

gggccccaaa ccccagctgc ctctcttcct tcccccccatc ccccacctgg 2650

ttttgactaa tcctgcttcc ctctctgggc ctggcctgccg ggatctgggg 2700

tccctaagtc cctctcttta aagaacttct gcgggtcaga ctctgaagcc 2750

gagttgctgt gggcgtgccc ggaagcagag cgccacactc gctgcttaag 2800

ctcccccagc tctttccaga [illegible]

<210> 78
<211> 281
<212> PRT
<213> Homo sapiens

<400> 78

Met Gly Ser Arg Gly Gln Gly Leu Leu Leu Ala Tyr Cys Leu Leu
1 5 10 15

Leu Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val
20 25 30

Gln Gly Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser
35 40 45

Pro Pro Asp His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr
50 55 60

Arg Pro Ser Gln Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg
65 70 75

Cys Cys Asp Pro Gly Thr Ser Met Tyr Pro Ala Thr Ala Val Pro
80 85 90

Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys Gly Asp Arg Gly
95 100 105

Asp Arg Gly Leu Gln Gly Lys Tyr Gly Lys Thr Gly Ser Ala Gly

Ala Arg Gly His Thr Gly Pro Lys Gly Gln Lys Gly Ser Met Gly
125 130 135

Ala Pr Gly Gln Arg Tyr Lys Ser His Tyr Ala Ala Phe Ser Val
140 145 150

Gly Arg Lys Lys Ile Met His Ser Asn His Tyr Tyr His Thr Val
155 160 165

Ile Thr Asp Thr Glu Phe Val Asn Leu Tyr Asp His Phe Asn Met
170 175 180

Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu Tyr Phe Phe
185 190 195

Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr Leu His
200 205 210

Ile Met Lys Asn Glu Glu Glu Val Val Ile Leu Phe Ala Gln Val
215 220 225

Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu
230 235 240

Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg
245 250 255

Glu Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe
260 265 270

Ser Gly Tyr Leu Val Lys His Ala Thr Gln Ile
275 280

<210> 78
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 78
tacaaggcca gtcaggacca gggg 24

<210> 80
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 80
ccgaaggaat agattcggg tacg 24

<210> 81

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
[illegible] 45

<210> 82
<211> 1[illegible]
<212> DNA
<213> Homo Sapien

<400> 82
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tcctctcgac gggcgcgaca gagctgtcct cgcacctgga tggcagcagg 100

gggcccgggg tcctctcgac gccagagaga aatctcatca tctatgcaac 150

cttcttaaag caaactaaga ccagaggaag aattatcctt gacctttgaa 200

gaccaaaaat aaactaaaat ttaaaatgtt cttcggggga gaagggagct 250

tgacttcaac tttggtaata atttactttc tgacactaag gctgtctgct 300

agtcaaaatt [illegible] [illegible] gatgttgtca ttgatat[illegible] 350

gtcat[illegible] tctaa[illegible] tcaa[illegible] [illegible] [illegible] 400

[illegible] [illegible] [illegible] [illegible] cat[illegible] 450

aacaaagcat gtaacttgat gatctt[illegible] [illegible] [illegible] 500

[illegible] tacctatttt [illegible] [illegible] [illegible] 550

[illegible] [illegible] [illegible] [illegible] [illegible] 600

ttga[illegible]agaa atttgccaag ccaaaagtta cccaggaaa attctctctt 650

aatatgccaa ttttcacaag [illegible] [illegible] cattcacaag 700

attattcaaa accacaggat atct[illegible]tgga [illegible]acact tt[illegible]caaaag 750

tttggatcct caqatcacct [illegible]aacta tttaaaatgg atgaagcaag 800

[illegible] [illegible] [illegible] [illegible] [illegible] 850

[illegible] [illegible] [illegible] [illegible] [illegible] 900

[illegible] [illegible] [illegible] [illegible] [illegible] 950

aaagcccgc[illegible] [illegible] ccaccaatgc [illegible] [illegible]tctggga 1000

cttaccagcc acagctggcc accacagctc [illegible] [illegible]tgtcact 1050

[illegible] 1100

[illegible] 1150

[illegible] 1200

[illegible] 1250

[illegible] 1300

[illegible] 1350

[illegible] 1400

[illegible] 1450

[illegible] 1500

[illegible] 1550

[illegible] 1600

[illegible] 1650

[illegible] 1700

[illegible] 1750

[illegible] 1800

[illegible] 1850

[illegible] 1900

[illegible] 1950

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[illegible] 2050

[illegible] 2100

[illegible] 2150

[illegible] 2200

[illegible] 2250

[illegible] 2300

<210> 8
<211> 4[illegible]
<212> PRT
<213> [illegible]

<400> 8
Met Phe Phe Gly Gly Glu Gly Ser Leu Thr Tyr Thr Leu Val Ile
1 5 10 15

Ile Cys Phe Leu Thr Leu Arg Leu Ser Ala Ser Gln Asn Cys Leu
20 25

Lys Lys Ser Leu Glu Asp Val Val Ile Asp Ile Gln Ser Ser Leu
35 4

Ser Lys Gly Ile Asn Gly Asn Glu Pro Val Tyr Thr Ser Thr Gln
5

Glu Asp Tyr Ile Asn Ser Cys Tyr Ser Thr Lys Asn Ile Ser Gly
7

Asp Lys Ala Cys Asn Leu Met Ile Phe Asp Thr Arg Lys Thr Ala
80 85 90

Arg Gln Pro Asn Cys Tyr Leu Phe Phe Cys Pro Asn Glu Glu Ala
9 100 105

Cys Pro Leu Lys Pro Ala Lys Gly Leu Met Ser Tyr Arg Ile Ile
110 115 12

Thr Asp Phe Pro Ser Leu Thr Arg Asn Leu Pro Ser Gln Glu Leu
125 130 135

Pro Gln Glu Asp Ser Leu Leu His Gly Gln Phe Ser Gln Ala Val
140 14 15

Thr Pro Leu Ala His His His Thr Asp Tyr Ser Lys Pro Thr Asp
155 160 165

Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys Phe Gly Ser Ser Asp
17 175

His Leu Gln Lys Leu Phe Lys Met Asp Glu Ala Ser Ala Gln Leu
185 190 19

Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser Gln Ile Ser
200 205 210

Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val Ser Ala
215 220 225

Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser Ala
230 235 240

Thr Pro Lys Pro Ala Thr Leu Leu Pro Thr Asn Ala Ser Val Thr
245 250 255

Pr Ser Gly Thr Ser Gln Pro Gln Leu Ala Thr Thr Ala Pro Pro
26 270

Val Thr Thr Val Thr Ser Gln Pro Pro Thr Thr Leu Ile Ser Thr
275 28

Val Phe Thr Arg Ala Ala Ala Thr Leu Glu Ala Met Ala Thr Thr
295 300

Ala Val Leu Thr Thr Thr Phe Gln Ala Pro Thr Asp Ser Lys Gly

Ser Leu Glu Thr Ile Pro Phe Thr Glu Ile Ser Asn Leu Thr Leu
320

Asn Thr Gly Asn Val Tyr Asn Pr Thr Ala Leu Ser Met Ser Asn

Val Gln Ser Ser Thr Met Asn Lys Thr Ala Ser Trp Gly Arg

Glu Ala Ser Pr Gly Ser Asn Pro Glu Gly Ser Val Pr Glu Asn
365

Gln Tyr Gly Leu Pr Phe Glu Lys Trp Leu Leu Ile Gly Ser Leu
380

Leu Phe Gly Val Leu Phe Leu Val Ile Gly Leu Val Leu Leu Gly
395

Arg Ile Leu Ser Glu Ser Leu Arg Asn Lys Arg Tyr Ser Arg Leu
410

Asp Tyr Leu Ile Asn Gly Ile Tyr Val Asp Ile
425

<210> 84
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 84
aggaagatt atcctgacc tttgatgatc 30

<210> 85
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 85
gaagcaaatg ccgatttc 18

<210> 86
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 86
cggtccctg ctatttgg 18

<210> 87
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 87
[illegible] 24

<210> 88
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
agtataagtc aagatccc 18

<210> 89
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 89
[illegible] 49

<210> 90
<211> 957
<212> DNA
<213> Homo Sapien

<400> 90
cctggaagat gcaccattg gctggtggcc tgctcaaggt gatgttcgtg 50

atcttcgcct [illegible] ctggtattca gggtacctgc tcgcagagct 100

[illegible] [illegible] [illegible] ctatagcatc ccagcatcg 150

[illegible] [illegible] gctccagtcc ccaaaaggca aaaatgtgac 200

[illegible] [illegible] [illegible] [illegible] tactcagcgg 250

[illegible] [illegible] [illegible] [illegible] [illegible] 300

[illegible] [illegible] [illegible] [illegible] [illegible] 350

[illegible] [illegible] [illegible] [illegible] [illegible] 400

[illegible] [illegible] [illegible] [illegible] [illegible] 450

aatccctgct cttcatggtg acctatgacg acggaagcac aagactgaat 500

aa gatgcca agaatgccat agaagcactt ggaagtaaac aaatcaggaa 550

catgaattc aggtctagct gggtatttat tgcagcaaaa ggcttggaac 600

[illegible] 650

[illegible] 700

[illegible] 750

[illegible] 800

gcccatattt gatgactatt ttgggtttgt tgtaaacaa tgaacatttg 850

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tagtgaagat gtcaattagc aggaaactaa aatgaatgga aattcttaaa 950

aaaaaaa 957

<210> 91
<211> 235
<212> PRT
<213> Homo Sapien

<400> 91

Met Arg Pro Leu Ala Gly Gly Leu Leu Lys Val Val Phe Val Val
1 5 10 15

Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly Tyr Leu Leu Ala Glu
20 25 30

Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg
35 40 45

Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
50 55 60

Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
65 70 75

Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys Ile
80 85 90

Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
95 100 105

Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
110 115 120

Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser
125 130 135

Gly Pro Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu
140 145 150

Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn
155 160 165

Asp Ala Lys Asn Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg
170 175 18

Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly
185 190 19

Leu Glu Leu Pro Ser Glu Ile Gln Ala Glu Lys Ile Asn His Ser
200 205 21

Arg Ala Lys Asn Asn Arg Tyr Ser Gly Trp Ar Ala Ile Ile Ile
215 22

Ile Glu Gly Cys Ile Pro Lys Glu Arg Ser
230 235

<210> 92
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 92
aatgtgccga ctggactccc 20

<210> 93
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 93
atgctgcaga ctcctttc 18

<210> 94
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 94
aagattgttt atcgattccg gctg 24

<210> 95
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 95
aatccctgct cttcatggtg acctatgacg acggaagcac aagactg 47

<210> 96
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 96
[illegible] 21

<210> 97
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 97
[illegible]ctcag cttccgcct[illegible] tacga 25

<210> 98
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 98
[illegible] 18

<210> 99
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 99
[illegible]aaggaa tgggaacagt 20

<210> 100
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 100
[illegible] 25

<210> 101
<211> 19
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 101
[illegible] 18

<210> 102
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 102
[illegible] 18

<210> 103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 103
[illegible] 27

<210> 104
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 104
[illegible]

<210> 105
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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